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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/886,881	07/02/97	ECKSTEIN	J PA1220-C2

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IM22/0802

EXAMINER

TARAZANO, D

ART UNIT

PAPER NUMBER

1773

DATE MAILED:

08/02/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
08/886,881

Applicant(s)
Eckstein et al.

Examiner
D. Lawrence Tarazano

Group Art Unit
1773



☒ Responsive to communication(s) filed on Jul 12, 2000

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-3, 7, 8, 10-16, 18, 35-37, 41-49, and 51 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-3, 7, 8, 10-16, 18, 35-37, 41-49, and 51 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

1. The request filed on 7-12-2000 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 08/886,881 is acceptable and a CPA has been established.

An action on the CPA follows.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3. Claims 1 and 35 are rejected under 35 U.S.C. 102(b) as being anticipated by Schut "Enter a New Generation of Polyolefins", dated Nov 1991.

Claims 1 and 35 are directed to "structures comprising a polymer formed by the polymerization reaction with a single site catalyst".

Schut discloses on page 16, column 3 that EXXON has produced polymers coating for cable and wire applications in which these polymers were made by metallocene or single site catalysis page 15, column 2.

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4. Claims 1, 2, 35 and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Meier et al. (4,957,946).

Meier et al. teach coating compositions and coatings made thereof which comprise metallocene iron catalysts that function as photo initiators for epoxide polymers (see the examples), in which films are produced (column 11, lines 28-35).

5. Claims 1, 2, 35 and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Palazotto (5,089,536).

Palazotto also teaches the use of metallocene or single site species as polymerization initiators (pages 13, and 14), see examples 1-4 which show single site catalysts, in which these metallocene materials are single site in nature due to the cationic nature of the species. The examples show that the materials are used to produce films.

While the applicant may intend to refer to olefinic polymerization, the examiner has included the rejections over Meier et al. (4,957,946) and Palazotto (5,089,536) to show the breath of the applicants' claims.

6. Claims 1-3, 7, 8, 10-11, 13, 14, 16, 18, 35, 36, 37, 41-44, 46, 47, 49, and 51 are rejected under 35 U.S.C. 102(e) as being anticipated by Hodgson, Jr. (5,206,075).

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Hodgson teaches copolymers of ethylene and C_3C_{20} comonomers made by metallocene catalysis. These materials are used to produce multilayer films in which the base layer can comprise blend of more than one such polymer and a polypropylene species (column 7, lines 48-64) in which blends of ethylene-butene and ethylene-hexene copolymers are recited.

Regarding claims 16 and 49, since no density range is recited with the term LLDPE (linear low density polyethylene), the examiner takes the position that the second VLDPE (very low density polyethylene) recited in Hodgson would meet this limitation. Since VLDPE materials are low density and linear, they would be encompassed by the term LLDPE

Hodgson discloses the use of bis-cyclopentadienyl zirconium catalysts, an example of a single site zirconocene (metallocene) species (column 8, lines 26+).

7. Claims 1-3, 7-8, 10-14, 16, 18, 35-37, 41-47, 49, and 51 are rejected under 35 U.S.C. 102(e) as being anticipated by Lai et al. (5,272,236).

Lai et al. teaches films made from polymers produced using single site catalysts, see example 10 and the abstract.

The materials are copolymers of butene, 4-methyl-pentene, hexene and octene (column 3, lines 41+). These polymers can be produced in to films by conventional methods (column 14, line 11) and the example 10 shows the production of blown films. The polymers of the invention can be formed into blends with materials such as LLDPE or other substantially linear materials (column 14, lines 31+).

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While the material produced by Lai et al. are formed by a constrained geometry catalyst, which has a single cyclopentadienyl ligand, the applicants state that their term "metallocene" encompasses such structures, (page 7, lines 13+ and figure 4).

8. Claims 1-3, 7-8, 10-11, 13-15, 35-37, 41-44, and 47-48 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Hodgson et al. (5,376,439).

Hodgson et al. teach narrow molecular weight polyethylene blends formed into films comprising high density polyethylene cores (column 2, lines 45+) or into monolayer structures.

The narrow molecular weight very low density ethylene polymer, (single site catalyzed polymer) used as the first component of the films are copolymers of ethylene and C₄-C₂₀ alpha-olefins: recited materials include ethylene/butene, ethylene/hexene, and ethylene/ octene copolymers (column 3, lines 60+), in which these materials are made by single site (metallocene) catalysis (column 7, lines 14+).

The above mentioned first component is blended with a second material such as LDPE. See example 1 which show production of a mono-layer film from the blend.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 12 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hodgson et al (5,206,075) or Hodgson (5,376,439).

As discussed above each teach the production copolymers of ethylene and C₃-C₂₀ olefins and films made thereof. The applicants claim an ethylene / 4-methyl-pentene copolymer made in to a film.

Methyl-pentene is merely an example of a (C₆) alpha-olefin, which would fall within the types of comonomers suggested by either Hodgson patent.

In the absence of unexpected results related to using 4-methyl-pentene as a comonomer, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have used 4-methyl-pentene as a commoner in the production of polymers and films taught by ether Hodgson et al (5,206,075) or Hodgson (5,376,439) since this is merely choosing one monomer from those generically suggested and would provide the same function as any other olefin used.

Response to Arguments

11. Applicant's arguments with respect to claims 1-3, 7, 8, 10-16, 18, 35-37, 41-49, and 51 have been considered but are moot in view of the new ground(s) of rejection.

Upon review of the claims and the specification the examiner had withdrawn the previous rejection of claims 15 and 48 under 112 first paragraph. It appears that the LDPE material is the

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second component of the blend, and can be conventional LDPE made by high pressure free radical processes. The claim does not specifically refer to LDPE made by metallocene catalysis.

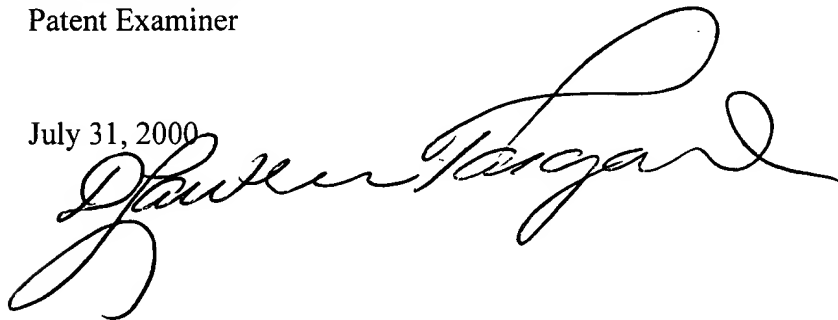
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. Lawrence Tarazano whose telephone number is (703) 308-2379. The examiner can normally be reached on M-F from 8:30 am to 5:30 pm.

The official fax number for the art unit is (703)-305-3599. The special fax number for amendments after final is (703)-305-5408. The number for unofficial faxes is (703)-305-5436.

D. Lawrence Tarazano
Patent Examiner

July 31, 2000

A handwritten signature in black ink, appearing to read "D. Lawrence Tarazano", written over the date "July 31, 2000". The signature is fluid and cursive, with the first name "D." being small and the last name "Tarazano" being larger and more prominent.